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AUTHOR

Bauman, Mark A.

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ABSTRACT

The author briefly reviews literature dealing with the origins of the accountability movement, with models and programs for its implementation, and with the unresolved philosophical and methodological controversies surrounding accountability. (Author/IRT)

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ACCOUNTABILITY FOR THE EDUCATIONAL ENTERPRISE:

A REVIEW OF THE LITERATURE

BY

MARK A. BAUMAN

Lessinger describes the concept of accountability, as applied to education, as the "sine qua non for education in the 1970's." President Nixon also endorsed this concept in his 1970 Educational Message. Definitions have been offered by Lessinger, Lopez, Garvue, Lieberman, and Bowers. 7

The increased awareness of this concept within the overall society and within the educational enterprise in particular has been brought to the educator's front door as a result of the public's demand to hold schools (more specifically educators) accountable for the results (student achievement) with the money they spend. Barro identified four "current thoughts and actions" which resulted from this public pressure:

- The new, federally stimulated emphasis on evaluation of school systems and their programs;
- 2) The growing tendency to look at educational enterprises in terms of cost-effectiveness;
- 3). Increasing concentration on education for the disadvantaged as a priority even for the schools;
- The movement to make school systems more directly responsive to their clientele and communities, either by establishing decentralized community control or by introducing to sumer choice through a voucher system.

Throughout the educational profession a debate rages over the definitions, organization structures, and the degree of reliability measurements used to gain accountability. Yet, educators agree that some form of "accountability" is necessary if funding is going to be continued, at least, at the present level. Darland argued that before educators, as a profession, can be held accountable, they must control access to the field. The eventual acceptance and institutionalization of accountability depends on this. Lessinger, however, took issue with this view. He described educators as being "poorly

prepared to argue the just claims of professionalism. . . (because) we have resisted the . . . ultimate test of professional competence: proof of results . . . professionalism. . . . goes hand in hand with accountability. . . "11

Most educators support the concept of accountability, yet, some have voiced opposition to the analogy which appears to be inherent in the concept, that of "equating the educational process with the type of engineering process that applies to industrial production."

12 Dyer maintained that the output of the educational process, the student, was never a finished product, 13 whereas Lessinger developed an entire system and structure based on "educational engineering."

Educational engineering, as defined by Lessinger, refers to an interdisciplinary field, whose goal is the operation of the education enterprise in an efficient and effective manner. This could be accomplished through the use of instructional technology together with systems analysis, management by objectives, contract engineering, logistics, quality assurance, value engineering, and human factor engineering, etc.

Lessinger attempted to justify the use of the engineering-industrial principle in education by stating that,

". . . while the teaching-learning environment differs from the world of business and industry, some rationalization of the two sub-cultures may be beneficial. A major objective of educational engineering may very well be to arm educational practitioners with both the technological competence of essential engineering generalizations, strategies, and tools and the professional practice of a successful instructor or educational manager. From this point of view, educational engineering can be a symbiotic art - a marriage of humanism and technology."

By its very nature, accountability depends on maximum productivity and efficiency, in both the educational and economic senses within which the effectiveness of the educational dollar (input) was identified as a primary factor in attaining the maximum student achievement (output).



Like Lessinger's performance contracting, cost-effectiveness is one process for which accountability is the product. Lessinger focused on "results obtained for resources used." While Carvue, 16 Barro, 17 Lieberman, 18 and Duncan focused on the effective use of resources, Barro alone made direct reference to cost-effectiveness by stating that "the growing tendency [is] to look at educational enterprises in terms of cost-effectiveness." Deterline perceived or viewed accountability in education as eventually being "implemented on an efficient, cost-effectiveness basis. . .".21

The end result of using cost-effectiveness, PPBS, systems analysis, and the like, is the accumulation of documented data on actual levels of productivity, efficiency and effective use of resources (the educational dollar).

The literature describes several programs and/or organization structures used to achieve accountability. Lessinger offered an "cducational engineering" program and structure. 22 Dyer developed characteristics of an educational accounting system based on his "pupil-change model." 23 This theory is based on the notion of a school as a social system that effects changes of various kinds in both the children who pass through it and in the professional personnel responsible for maintaining the school. The school as a social system becomes an educational system when its constituents—pupils, teachers, principal—work toward some clearly defined pupil performance objectives. The theory identifies four groups of variables which must be recognized and measured if one is to develop acceptable criteria of staff accountability: input, educational process, surrounding conditions, and output.

The voucher system advocated by Lieberman and Bowers emphasizes consumer choice. By increasing consumer choice in education, a measure of competition among schools will be introduced which presumably will lead to increased effectiveness.



Finally, Kaufman offered his Educational Process Model. "This model has been called a 'System Approach' to Education, representing a closed-loop, self-correcting process for proceeding from identified needs to predictable outcomes." The model consists of six sequential steps:

- 1) identify problem (based on documented need)
- 2) determine solution requirements and solution alternatives
- 3) select strategies and tools (from among the alternatives)
- 4) implement
- 5) determine performance effectiveness
- 6) revise as required 25

The concept of accountability has generated many currently unresolved philosophical and methodological controversies. McComas' belief that "achievement of the learner should be the focal point of analysis and evaluation" 26 seems to characterize the essence of the literature on accountability. The major problem seems to be the identification of measurement tools that provide the necessary "consistency of findings, validity and replication." 27 Barro encouraged the use of multiple regression analysis, with "result-oriented data and reason-oriented data" 28 which would identify and assign a value to effectiveness indicators. Yet, Lopez maintained that measurement development thus far, has not met even minimum standards of reliability and relevancy. 29

In light of the above mentioned problems, Catallozzi 30 and Wildavsky 31 believed that only observable, and measureable phenomenon should be tested by using standardized tests and significant norms respectively. (This is fine, if one assumes that all human experience is open to such measurement).

In closing, accountability has potential uses that have been implied in this paper and some of which were identified by Durstine and Barro.



"Comparisons among the measures for various parts of the system
. . . Projections into the future. . . Allocation of resources. . .
Management control. . . and Policy level decisions to name a few."
[Durstine]

"Identification of effective schools. . .Personnel assignment and selection. . .Personnel incentives and compensation. . .

Improved resource allocation. . . and Program evaluation and research."

[Barro]

One should mention—that there have been attempts to establish accountability systems. The Florida<sub>34</sub> and the Texarkana studies dramatically reveal the complexity of problems with which accountability is faced, and which it will continue to face until such time as the philosophical and methodological problems are resolved.

## FOOTNOTES

- Leon Lessinger, "Engineering Accountability for Results in Public Education," Phi Delta Kappan (December, 1970), 217.
- <sup>2</sup>C.A. Bowers, "Accountability from a Humanistic Point of View," Educational Forum, Vol. 35 (May, 1971), 479.
- 3Lessinger, "Engineering Accountability for Results in Public Education, op. cit., 217.
- Felix M. Lopez, "Accountability in Education," Phi Delta Kappan (December, 1970), 231.
- Robert J. Garvue, "Accountability: Comments and Questions," Educational Technology (January, 1971), 34.
- Myron Lieberman, "An Overview of Accountability," Phi Delta Kappan (December, 1970), 194.
  - 7<sub>C.A. Bowers, op. cit., 479.</sub>
- Stephen M. Barro, "An Approach to Developing Accountability Measures for Public Schools," Phi Delta Kappan (December, 1970), 196.
  - 9 Barro, op. cit., 196.
- Accountability," Phi Delta Kappan (September, 1970), 42.
- Leon Lessinger, "Robbing Dr. Peter to 'Pay Paul': Accounting for Our Stewardship of Public Education," Educational Technology (January, 1971), 13.
- Henry S. Dyer, "Toward Objective Criteria of Professional Accountability in the Schools of New York City," Phi Delta Rappan (December, 1970), 211.
  - 13 Dyer, 02. cit., 211.
- 14 Leasinger, "Engineering Accountability for Results in Public Education," gp. cit., 218.
- 15 Lessinger, "Ergineering Accountability for Results in Public Education," on cit., 218.



- 16 Garvue, op. cit., 34.
- 17 Barro, op. cit., 197.
- 18 Lieberman, op. cit., 194.
- Merlin G. Duncan, "An Assessment of Accountability: The State of the Art," Educational Technology (January, 1971), 27.
  - 20 Barro, op. cit., 196. -
- William A. Deterline, "Applied Accountability," Educational Technology (January, 1971), 20.
- 22 Lessinger, "Engineering Accountability for Results in Public Education," op. cit., 217.
  - 23 Dyer, op. cit., 211.
  - 24 Lieberman, op. cit., 195 and Barro, op. cit., 198.
- Roger A. Kaufman, "Accountability, A System Approach and the Quantitative Improvement of Education-An Attempted Integration," Educational Technology (January, 1971).
- 26 J.D. McComas, "Accountability: How bo We Measure Up?" Educational Technology (January, 1971), 31.
  - 27<sub>Barro, op. cit.</sub>, 204-205.
  - 28<sub>Barro, op. cit., 201.</sub>
  - 29 Lopez, op. cit., 231.
- John Catallozzi, "Accountability and Responsibility in Education," Journal of Education, Vol. 154, 2 (December, 1971), 22.
- 31 Aaron Wildavsky, "A Program of Accountability for Clementary Schools," Phi Delta Kappan (December, 1970), 212.
- Richard M. Durstine, "An Accountability Information System."
  Phl Belta Karpen (December, 1970), 238.
  - 33 Barco, op. ctr., 205.
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